

# PATENT ABSTRACTS OF JAPAN

(11)Publication number :

62-121643 CITATION C

(43)Date of publication of application : 02.06.1987

(51)Int.Cl.

B01J 19/00

B01J 19/12

C01B 31/36

C01B 33/16

(21)Application number : 60-257866

(71)Applicant : MITSUI TOATSU CHEM INC

(22)Date of filing : 19.11.1985

(72)Inventor : YAMAMOTO SADA AKI

KOBAYASHI SADA O

SUGAWA HIROSHI

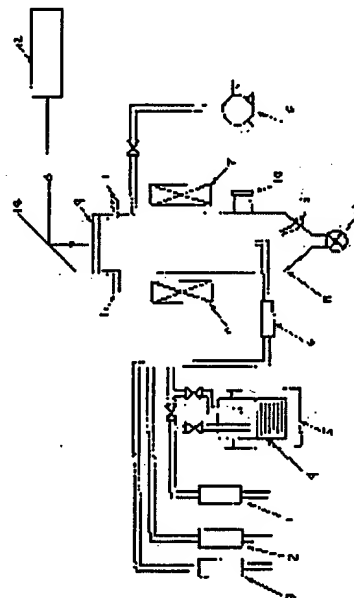
ISOTANI KAZUYOSHI

## (54) PREPARATION OF POWDER USING LASER

### (57)Abstract:

**PURPOSE:** To prepare a high-purity inorg. powder having a uniform particle size and a uniform composition, by guiding introduced gas to a nucleus forming region to irradiate the same with laser beam to form a nucleus and holding the formed nucleus to specific temp. in a particle growing area.

**CONSTITUTION:** A gaseous mixture of reaction gas/dilution gas set to a predetermined flow amount by flowmeters 1W3 is suitably preheated to predetermined temp. by a preheater 5 and introduced into a reactor 8 from the lower part thereof through a nozzle. The introduced gaseous mixture is countercurrently irradiated with laser beam from above the reactor 8 through a window 9 by a laser beam irradiating means. Suitably, the preheated reaction gas absorbs laser beam and the temp. thereof reaches a threshold value generating chemical reaction to suddenly induce chemical reaction and a uniform nucleus is formed. Further, laser beam may be allowed to irradiate through the window 10 mounted to the reactor.



## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision  
of rejection]

[Date of requesting appeal against examiner's  
decision of rejection]

[Date of extinction of right]